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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,218	10/11/2000	Thomas E. Giles	082225.P4249	7966

8791 7590 06/06/2005

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EXAMINER

LIN, KENNY S

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/689,218

Applicant(s)

GILES ET AL.

Examiner

Kenny Lin

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-12 are presented for examination. Claims 13-20 are canceled.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/10/2004 has been entered.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Art Unit: 2154

4. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Hipp et al (hereinafter Hipp), US 6,411,506.
5. Hipp was cited in the previous office action.
6. As per claim 1, Hipp taught the invention as claimed including an apparatus comprising:
  - a. A card rack (fig.13, col.7, lines 57-62);
  - b. two or more server node cards, each server node card can perform server functions with integrated switch and router functions including load balancing and fail-over (col.2, lines 16-22, col.3, lines 63-67, col.4, lines 1-6, col.7, lines 10-22, 51-62, col.8, lines 26-29); and
  - c. A plurality of ports coupled with the two or more server node cards (col.8, lines 50-56, col.9, lines 62-67, col.10, lines 1-6, col.11, lines 1-12).
7. As per claim 5, Hipp taught the invention as claimed including a server block comprising:
  - a. A plurality of server nodes, each server node comprising a server with integrated switching, routing, load balancing and fail-over functions and a plurality of ports, at least one port of the plurality of ports configured for connection to an external network (col.2, lines 16-22, col.3, lines 63-67, col.4, lines 1-6, col.7, lines 10-22, col.8, lines 26-29, 50-56, col.9, lines 62-67, col.10, lines 1-6, col.11, lines 1-12); and

Art Unit: 2154

- b. A plurality of signal paths connected with the plurality of ports of the server nodes of the plurality of the server nodes (col.3, lines 62-64, 66-67, col.4, line 1), at least two of the plurality of ports of each server node of the plurality of server nodes connected with another server node of the plurality of server nodes in the server block (col.2, lines 23-31, col.4, lines 34-58).
8. As per claim 2 and 6, Hipp taught the invention as claimed in claims 1 and 5. Hipp further taught wherein each server node of the plurality of server nodes comprises one single printed circuit board (col.8, lines 1-10, col.10, lines 54-59, col.11, lines 13-15).
9. As per claim 3, Hipp taught the invention as claimed in claim 1. Hipp further taught that where the plurality of ports comprises four ports (col.9, lines 27-34, col.11, lines 13-23).
10. As per claims 4 and 7, Hipp taught the invention as claimed in claims 2 and 6. Hipp further taught wherein the printed circuit board is rack mountable and the plurality of ports of each server node of the plurality of server nodes are accessible as connection points on the card rack and the server block is constructed in one card rack by interconnecting the connection points on the card rack (col.3, lines 56-61, col.7, lines 52-62, col.18, lines 16-21, fig.13).
11. As per claim 8, Hipp taught the invention substantially as claimed in claim 7. Hipp further taught wherein the external connections of the plurality of server block are provided through an interface card in the card rack, the interface card being connected to the plurality of

Art Unit: 2154

server nodes through connection points on the card rack (col.2, lines 23-31, col.3, lines 62-67, col.4, line 1, col.11, lines 64-67, col.12, lines 1-5, col.18, lines 16-21).

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hipp et al (hereinafter Hipp), US 6,411,506, in view of "Official Notice".

14. As per claim 9, Hipp taught the invention substantially as claimed including a computer network comprising:

- a. A plurality of server blocks wherein each server block (fig.13) comprises:
  - i. A plurality of server nodes, each server node comprising a server with integrated switching, routing, load balancing and fail-over functions and a plurality of ports (col.2, lines 16-22, col.3, lines 63-67, col.4, lines 1-6, col.7, lines 10-22, col.8, lines 50-56, col.9, lines 62-67, col.10, lines 1-6, col.11, lines 1-12), and
  - ii. A plurality of signal paths connected with the plurality of ports of each server node of the plurality of server nodes (col.3, lines 62-64, 66-67,

Art Unit: 2154

col.4, line 1), at least one signal path connected with each server node of the plurality of server nodes providing an external connection to a server block (col.14, 17-22, 25-29, 32-34), and at least two signal paths of the plurality of signal paths connected with each server node of the plurality of server nodes being connected with other server nodes of the plurality of server nodes in the block (col.2, lines 23-31, col.4, lines 34-58); and

- b. A plurality of signal paths connected with the server blocks (col.18, lines 16-21).

15. Hipp further taught to provide connector paths in the backplate of the server rack intended to facilitate daisy chaining of server blocks within server rack (col.18, lines 16-21). Hipp did not specifically teach to include at least one signal paths connected with each server block of the plurality of server blocks providing an external connection to the network, and at least two signal paths of the plurality of signal paths connected with each server block of the plurality of server blocks being connected with other server blocks of the plurality of server blocks. However, since Hipp taught to include a plurality of signal paths connected with the server blocks (col.18, lines 16-21), and at least two signal paths of the plurality of signal paths connected with each server node of the plurality of server nodes being connected with other server nodes of the plurality of server nodes in the block (col.2, lines 23-31, col.4, lines 34-58), Official Notice is taken that it would have been obvious to dedicate signal paths that are connected to the server blocks as an external connection to the network or for chaining of server blocks. It would have been obvious to one of ordinary skill in the art at the time the invention was made to dedicate a certain signal paths in Hipp's system for external network connection

Art Unit: 2154

and server blocks chaining facilitation purpose to provide communications in between the server blocks mounted on the same server rack (col.18, lines 16-21)

16. As per claim 10, Hipp taught the invention substantially as claimed in claim 9. Hipp further taught wherein each server node of the plurality of server nodes comprises one printed circuit board (col.8, lines 1-10, col.10, lines 54-59, col.11, lines 13-15).

17. As per claim 11, Hipp taught the invention substantially as claimed in claim 10. Hipp further taught wherein the printed circuit board is rack mountable and the plurality of ports of each server node of the plurality of server nodes are accessible as connection points on the card rack and a server block is constructed in one card rack by interconnecting the connection points on the card rack (col.3, lines 56-61, col.7, lines 52-62, col.18, lines 16-21, fig.13).

18. As per claim 12, Hipp taught the invention substantially as claimed in claim 11. Hipp further taught wherein the external connections of the plurality of server block are provided through an interface card in the card rack, the interface card being connected to the plurality of server nodes through connection points on the card rack (col.2, lines 23-31, col.3, lines 62-67, col.4, line 1, col.11, lines 64-67, col.12, lines 1-5, col.18, lines 16-21).

### ***Response to Arguments***

19. Applicant's arguments filed 12/10/2004 have been fully considered but they are not persuasive.



20. In the remark, applicant argued that (1), Hipp does not disclose a server node card with integrated switch and router function.

21. This argument had already been twice addressed in the previous Final Office Action and Advisory Action.

22. Examiner traverse the argument that:

Examiner would first like to clearly identify that “a server card with integrated switching and routing function” is differing from “a server card with integrated switching and routing components” to prevent future disagreement. Nowhere in the specification discloses or suggests the server card to be integrated with switching and routing components.

As to point (1), Hipp taught that each server node card can perform server functions with integrated switch and router functions including load balancing and fail-over (col.2, lines 16-22, col.3, lines 63-67, col.4, lines 1-6, col.7, lines 10-22, 51-62, col.8, lines 26-29). The switching and routing functions are inherent and essential functions in Hipp’s system in order to carry out the invention. Hipp taught a server card (col.1, lines 25-28) to connect with two separate networks, a public network (col.3, lines 66-67, col.4, lines 1-6, 59-60) and a private network (col.4, lines 11-13, col.5, lines 22-31). In order for the server node to transmit requested data to the desiring network, the server node **must switch** between the public network and the private network and **route** the requested data to the correct destination network or at least route the requested data to the correct switch of the destination network (either switch 42 or 50).

Art Unit: 2154

Inherently, the sever node card must first determine whether the data needs to be forwarded to an network interface card that couples the server node card and a public network or to a public switch for distributing the data. The determination of the destination of the data inherently determines the method of forwarding including routing or switching. Hipp further suggested using switch chip in the interface card, which provides switching functions (col.12, lines 25-43, 50-59). Hence, switching and routing functions are inherent features necessary and suggested in Hipp's teaching.

Because Applicants have failed to challenge any of the Examiner's "Official Notices" stated in the previous office action in a proper and reasonably manner, they are now considered as admitted prior art. See MPEP 2144.03

### *Conclusion*

23. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenny Lin whose telephone number is (571) 272-3968. The examiner can normally be reached on 8 AM to 5 PM Tue.-Fri. and every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2154

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ksl  
May 26, 2005

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